Chapter 4

California Air Quality Control Strategies

APPENDIX 4-B

CATEGORY I MODEL RULES

For

STATIONARY SOURCES

Revision to

STATE OF CALIFORNIA
IMPLEMENTATION PLAN

for the

ATTAINMENT AND MAINTENANCE OF
AMBIENT AIR QUALITY STANDARDS

April 1979

FOREWORD

This appendix contains the Air Resources Board's Category I Model Rules. These rules are considered by the ARB to be "reasonably available" for adoption by air pollution control districts which have sources affected by the rules.

The Category I rules comply with EPA's 15 Control Strategy Guidelines (CTGs) required to be adopted and included in 1979 Nonattainment Plans. In several cases ARB's model rules are more extensive than required in the CTGs. In some cases a specific model rule includes the requirements of more than one CTG.

Six rules for control of volatile organic compound (VOC) emissions which ARB has classified as Category I are not included in this appendix at this time: cutback asphalt, solvent metal cleaning (degreasing), refinery vacuum producing equipment, oil/water gravity separation devices, process turnarounds at refineries and surface coating for insulation of magnetic wire. The ARB does not intend to develop a model rule for insulation of magnetic wire since the South Coast Air Quality Management District, where the only sources of these emissions are located, is developing a rule. The remaining five model rules are expected to be available in the near future and will be added to this appendix at that time.

The rules contained in this appendix have been available previously to the public during and following ARB's public hearing process. The date issued by the ARB is indicated in the Table of Contents. Staff reports supporting the adoption of each specific rule are available by request to ARB's Stationary Source Control Division, P.O. Box 2815, Sacramento, California.

Thomas C. Austin
Executive Officer

TABLE OF CONTENTS

1. MODEL NEW SOURCE REVIEW RULES

(FEBRUARY 16, 1979)

State of California
AIR RESOURCES BOARD

Approved:
February 16, 1979

MODEL NEW SOURCE REVIEW RULES

RULE I. STANDARDS FOR PERMITS TO CONSTRUCT

A. GENERAL

The Air Pollution Control Officer shall deny a permit to construct for any new stationary source or modification, or any portion thereof, unless:

1. The new source or modification, or applicable portion thereof, complies with the provisions of this rule and all other applicable district rules and regulations; and
2. The applicant certifies that all other stationary sources in the State which are owned or operated by the applicant are in compliance, or are on approved schedule for compliance, with all applicable emission limitations and standards which are part of the State Implementation Plan approved by the Environmental Protection Agency.

B. APPLICABILITY AND EXEMPTIONS

1. This rule (excluding Section D) shall apply to all new stationary sources and modifications which are required pursuant to District rules to obtain a permit to construct.
2. Section (D) of this rule shall apply to new stationary sources and modifications which result in either:
   a. A net increase in emissions of 250 or more pounds during any day of any pollutant for which there is a national ambient air quality standard (excluding carbon monoxide), or any precursor

of such a pollutant; or

b. A net increase in carbon monoxide emissions which the Air Pollution Control Officer determines would cause the violation of any national ambient air quality standard for carbon monoxide at the point of maximum ground level impact.

3. The provisions of Part C of the Clean Air Act, as amended in 1977, and any regulations adopted pursuant to those provisions, shall not be applicable to any new stationary source or modification which receives a permit to construct pursuant to this rule, provided such source or modification complies with the requirements of Section (D) (2) (b) for all pollutants for which there is a national ambient air quality standard and all precursors of such pollutants.

4. Notwithstanding the provisions of Section (B) (2), the Air Pollution Control Officer shall exempt from Section (D) (2) any new source or modification:

a. Which will be used exclusively for providing essential public services, such as schools, hospitals, or police and fire fighting facilities, but specifically excluding sources of electrical power generation other than for emergency standby use at essential public service facilities.

b. Which is exclusively a modification to convert from use of a gaseous fuel to a liquid fuel because of a demonstrable shortage of gaseous fuels, provided the applicant establishes to the satisfaction of the Air Pollution Control Officer that it has made its best efforts to obtain sufficient emissions offsets pursuant to Section (D) of this rule, that such efforts had been

unsuccessful as of the date the application was filed, and the applicant agrees to continue to seek the necessary emissions offsets until construction on the new stationary source or modification begins. This exemption shall only apply if, at the time the permit to operate was issued for the gas burning equipment, such equipment could have burned the liquid fuel without additional controls and been in compliance with all applicable district regulations.

c. Which is portable sandblasting equipment used on a temporary basis within the District.

d. Which uses innovative control equipment or processes which will likely result in a significantly lower emission rate from the stationary source than would have occurred with the use of previously recognized best available control technology, and which can be expected to serve as a model for technology to be applied to similar stationary sources within the state resulting in a substantial air quality benefit, provided the applicant establishes by modeling that the new stationary source or modification will not cause the violation of any national ambient air quality standard at the point of maximum ground level impact. This exemption shall apply only to pollutants which are controlled by the innovative control equipment or processes. The Air Pollution Control Officer shall obtain written concurrence from the Executive Officer of the Air Resources Board prior to granting an exemption pursuant to this subsection.

e. Which is a cogeneration project, a project using refuse-derived or biomass-derived fuels for energy generation, or a resource recovery project using municipal wastes, provided:

(1) the applicant establishes by modeling that the new source or modification will not cause a new violation of any national ambient air quality standard at the point of maximum ground level impact; and

(2) the District has established an alternative energy project offset bank which contains sufficient credits to offset the net increase in emissions from the new source or modification to the extent required by Section (D) (2). For each exemption granted pursuant to this subsection, and notwithstanding Section (D) (2) (d), credits shall be withdrawn from the alternative energy project offset bank to offset the net increase in emissions from the new source or modification at a ratio of 1.2:1.

In order to establish and maintain the alternative energy project offset bank, the District may adopt rules or permit conditions which result in the cost/effective control of emissions from stationary sources throughout the District. The District shall include in the offset bank any power plant emission reductions which result from orders of the California Energy Commission or the California Public Utilities Commission. Emissions reductions which result from measures required to achieve and maintain any national ambient air quality standard, and reductions which have been proposed to offset the impact of another new source or modification for which the District has received an application, shall not be included in the offset bank.

The offset bank shall not be used to offset the emissions from those portions of a new source or modification which are not directly related to energy generation.

f. Which consists solely of the installation of air pollution control equipment which, when in operation, will directly control emissions from an existing source.

C. CALCULATION OF EMISSIONS

1. The maximum design capacity of a new stationary source or modification shall be used to determine the emissions from the new source or modification unless the applicant, as a condition to receiving permits to construct and operate such new source or modification, agrees to limitations on the operations of the new source or modification, in which event the limitations shall be used to establish the emissions from the new source or modification.

2. The emissions from an existing source shall be based on the specific limiting conditions set forth in the source's permits to construct and operate, and, where no such conditions are specified, on the actual operating conditions of the existing source averaged over the three consecutive years immediately preceding the date of application, or such shorter period as may be applicable in cases where the existing source has not been in operation for three consecutive years. If violations of laws, rules, regulations, permit conditions, or orders of the District, the California Air Resources Board, or the Federal Environmental Protection Agency occurred during the period used to determine the operating conditions, then adjustments to the operating conditions shall be made to

determine the emissions the existing source would have caused without such violations.

3. The net increase in emissions from new stationary sources and modifications which are not seasonal sources shall be determined using yearly emissions profiles. Yearly emissions profiles for an existing or proposed stationary source or modification shall be constructed by plotting the daily emissions from such source in descending order. A separate profile shall be constructed for each pollutant. If, for example, a source emits 750 lbs. of NOx one day per week, 500 lbs. of NOx two days per week and 250 lbs. of NOx on the remaining 4 days each week, then the profile will consist of 52 days at 750 lbs/day, followed by 104 days at 500 lbs/day, and then 208 days at 250 lbs/day, as shown in Figure 1.

   The net increase in emissions from a modification to an existing source shall be determined by comparing the yearly emissions profiles for the existing source to the yearly emissions profiles for the proposed source after modification. A net increase in emissions exists whenever any part of an emissions profile for a modified source exceeds the emissions profile for the existing source.

4. The net increase in emissions from new stationary sources and modifications which are seasonal sources shall be determined using yearly and quarterly emissions profiles.

   Quarterly emissions profiles shall be constructed by plotting the daily emissions from an existing or proposed seasonal facility in descending order for the continuous 90 day period during which the greatest emissions from the proposed new or modified source will occur. Yearly emissions profiles shall be constructed as described in Section (C) (3). A separate profile shall be constructed for each pollutant.

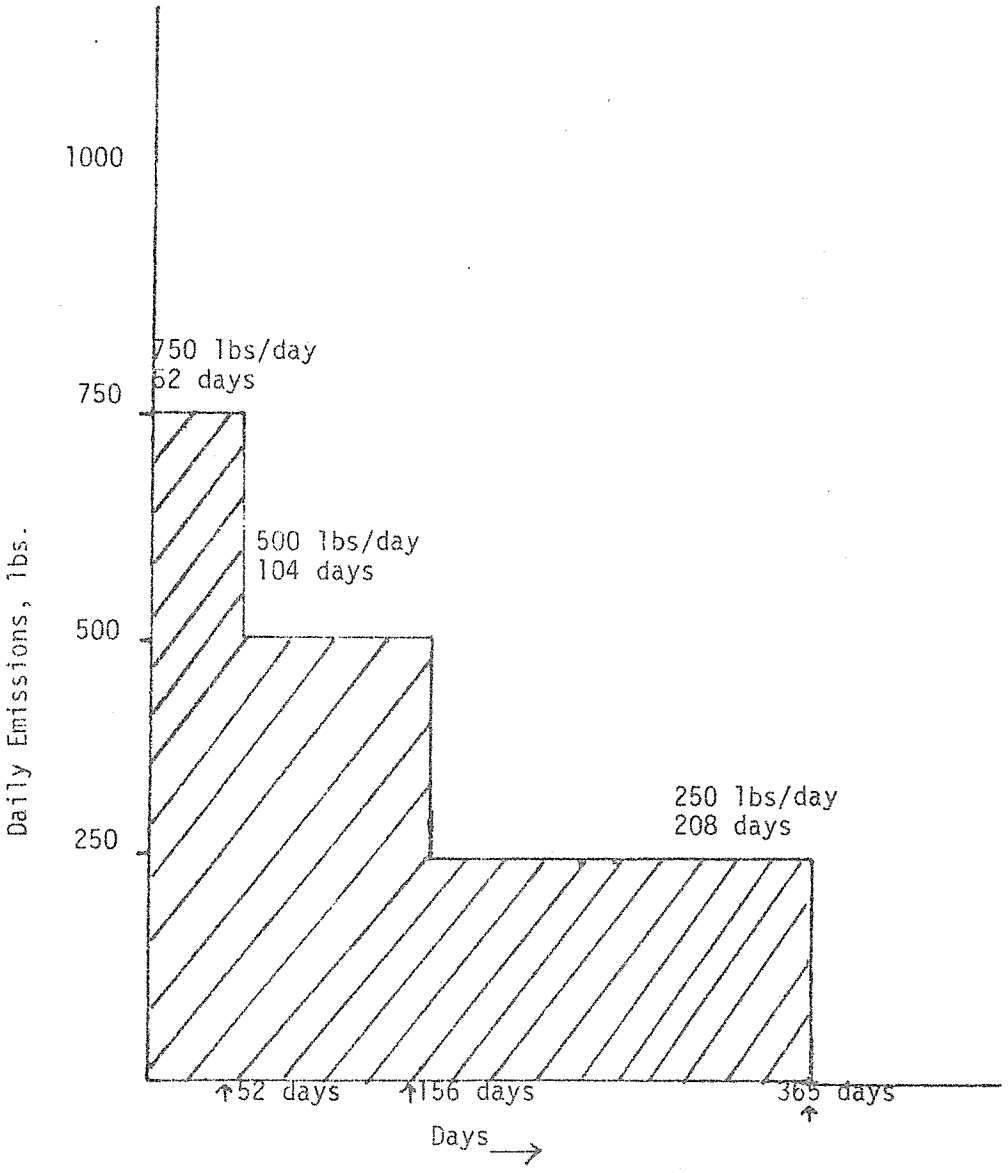


FIGURE 1, YEARLY EMISSIONS PROFILE

The net increase in emissions from a modification to an existing seasonal source shall be determined by comparing the yearly and quarterly emissions profiles for the existing source to the yearly and quarterly emissions profiles for the proposed source after modification. A net increase in emissions exists whenever any part of an emissions profile for the modified source exceeds the emissions profile for the existing source.

5. When computing the net increase in emissions for modifications, the Air Pollution Control Officer shall take into account the cumulative net emissions changes which are represented by permits to construct associated with the existing stationary source and issued pursuant to this rule or an equivalent regulation, excluding any emissions reductions required to comply with federal, state, or district laws, rules or regulations.

D. BEST AVAILABLE CONTROL TECHNOLOGY AND MITIGATION REQUIREMENTS

1. Best Available Control Technology

All new stationary sources and modifications subject to this section, excluding cargo carriers, shall be constructed using best available control technology.

2. Mitigation

a. For all new stationary sources and modifications subject to this section, mitigation shall be required for net emissions increases (i.e. increases after the application of best available

control technology):

(1) of each pollutant for which a national ambient air quality standard was exceeded within the air basin more than three discontinuous times (or, for annual standards, more than one time) within the three years immediately preceding the date when the application for the permit to construct was filed, and for all precursors of such pollutants; provided, however, that mitigation of net emission increases of sulfur oxides, total suspended particulates or carbon monoxide shall not be required if the applicant demonstrates through modeling that emissions from the new source or modification will not cause a new violation of any national ambient air quality standard for such pollutants, or make any existing violation of any such standard worse, at the point of maximum ground level impact.

(2) not subject to Subsection (1) but which the Air Pollution Control Officer determines would cause a new violation of any national ambient air quality standard, or would make any existing violation of any such standard worse, at the point of maximum ground level impact. Emissions reductions required as a result of this subsection must be shown through modeling to preclude the new, or further worsening of any existing, violation of any national ambient air quality standard that would otherwise result from the operation of the new source or modification, unless such reductions satisfy the requirements of Section (D) (2) (b).

b. Net emissions increases subject to Section (D) (2) (a) (1) shall be mitigated (offset) by reduced emissions from existing stationary or nonstationary sources. Emissions reductions shall be sufficient to offset any net emissions increase and shall take effect at the time, or before initial operation, of the new source, or within 90 days after initial operation of a modification.

c. Emissions offset profiles shall be used to determine whether proposed offsets mitigate the net emissions increases from proposed new sources or modifications.

(1) For all offset sources, a yearly emissions offset profile shall be constructed in a manner similar to that used to construct the yearly emissions profile for the proposed new or modified source. Daily emissions reductions which will result from the further control of such sources shall be plotted in descending order. A separate profile shall be constructed for each pollutant. Seasonal offsets shall not be used to mitigate the emissions from nonseasonal sources.

(2) In addition, for seasonal offset sources, a quarterly emissions offset profile shall be constructed for the same time period and in the same manner as that used to construct the quarterly emissions profile for the proposed new or modified source. Daily emissions reductions which will result from further control of existing sources shall be plotted on the quarterly offset profile in descending order. A separate profile (which may cover different months) shall be plotted for each pollutant.

(3) Adjusted emissions offset profiles shall be constructed by dividing each entry used in the construction of the emissions offset profiles by the offset ratio determined in Subsection (d).

(4) The adjusted emissions offset profiles shall be compared with the emissions profiles to determine whether net emissions increases have been mitigated at all points on the profiles.

For example, if emissions offsets of 900 lbs/day on 5 days per week, and 325 lbs/day the remaining 2 days per week, are proposed for the new source described in Figure 1, the emissions offset profile would be as shown in Figure 2a. Further, if the offset ratio determined pursuant to Subsection (d) were 1.2:1, an adjusted emissions offset profile would be constructed as shown in Figure 2b. Finally, the adjusted emissions offset profile would be compared with the emissions profile, as shown in Figure 2c, to determine whether the net increase had been mitigated at all points on the profile.

d. A ratio of emissions offsets to emissions from the new source or modification (offset ratio) of 1.2:1 shall be required for emissions offsets located either:

(1) upwind in the same or adjoining counties; or

(2) within a 15 mile radius of the proposed new source or modification.

For emissions offsets located outside of the areas described above, the applicant shall conduct modeling to determine an

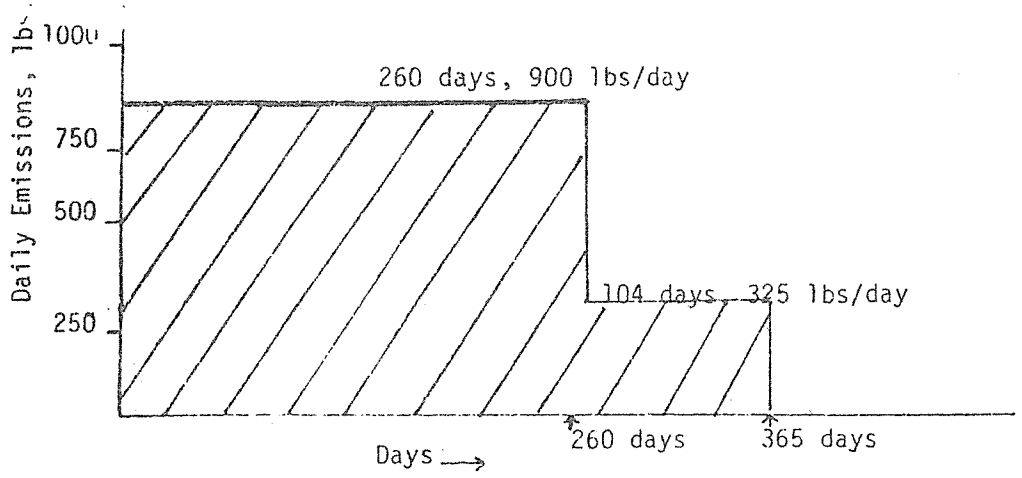


Figure 2a. Emission Offset Profile

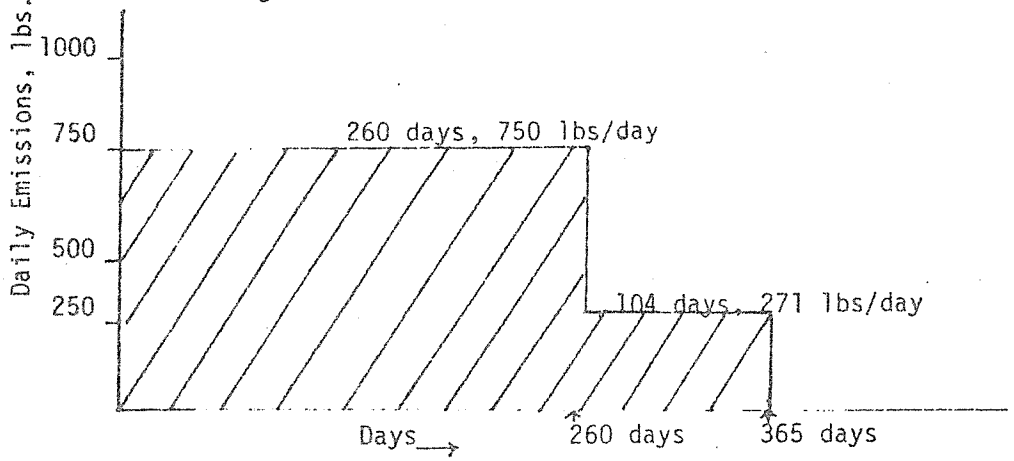


Figure 2b. Adjusted Emission Offset Profile

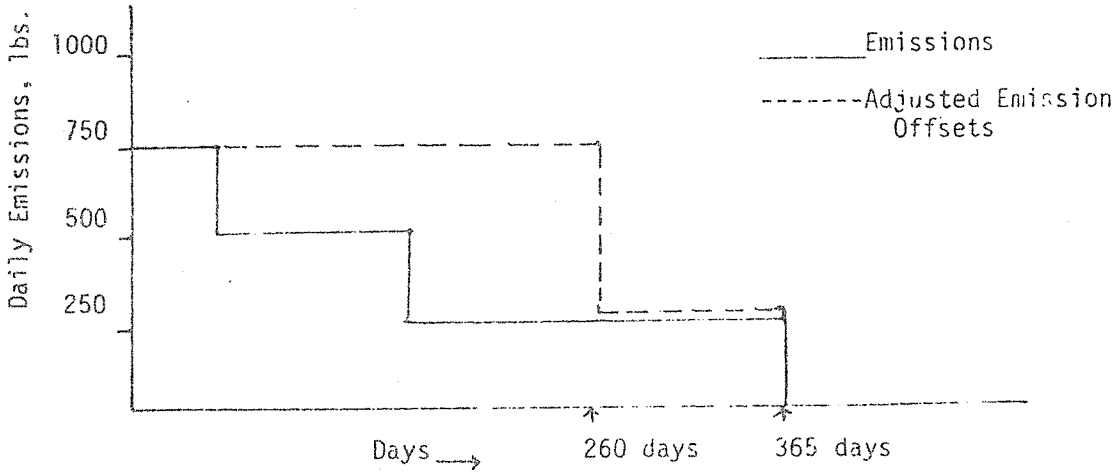


Figure 2c. Comparison of Emissions Profile and Adjusted Emissions Offset Profile

offset ratio sufficient to show a net air quality benefit in the area affected by emissions from the new source or modification.

Notwithstanding any other provision of this section the yearly emissions profiles and the yearly emissions offset profiles for a source subject to this section may be constructed based on the daily emissions from the source averaged on a monthly basis. In such event an offset ratio of 2.0:1 shall be required.

e. If an applicant certifies that the proposed new source or modification is a replacement for a source which was shut down or curtailed after February 16, 1978, emissions reductions associated with such shutdown or curtailment may be used as offsets for the proposed source, subject to the other provisions of this section.

Sources which were shut down or curtailed prior to February 16, 1978 may be used to offset emissions increases for replacements for such sources, subject to the other provisions of this section provided:

(1) the shutdown or curtailment was made in good faith pursuant to an established plan approved by the Air Pollution Control Officer for replacement and emission control, and in reliance on air pollution laws, rules and regulations applicable at the time; and

(2) the applicant demonstrates to the satisfaction of the Air Pollution Control Officer that there was good cause (which may include business or economic conditions) for delay in construction of the replacement facilities.

f. Notwithstanding any other provision of this section any emissions reductions not otherwise authorized by this rule may be used as offsets of emissions increases from the proposed source provided the applicant demonstrates that such reductions will result in a net air quality benefit in the area affected by emissions from the new source or modification, and provided the written concurrence of the ARB is obtained.

g. Emissions reductions resulting from measures required by adopted federal, state, or district laws, rules or regulations shall not be allowed as emissions offsets unless a complete application incorporating such offsets was filed with the District prior to the date of adoption of the laws, rules, or regulations.

h. The Air Pollution Control Officer shall allow emissions reductions which exceed those required by this rule for a new source or modification to be banked for use in the future by the applicant. Such reductions may be used only to offset emissions increases from proposed new sources or modifications owned or operated by the applicant within 15 miles of the site where the reductions occurred. All such reductions, when used as offsets for the increased emissions from a proposed new source or modification, shall be used in accordance with the other provisions of this Section.

i. For all power plants subject to Section (H), the applicant may, upon written notice to the Air Pollution Control Officer and the Executive Officer of the Air Resources Board, establish an emissions offset bank for a specific power plant at a specific location. The emissions offset bank shall be established no earlier than the date the applicant's Notice of Intention for

the power plant is accepted by the California Energy Commission. The emissions offset bank shall lapse if the Commission rejects the applicable power plant or site; however, in such case the applicant may transfer the emissions offsets contained in the bank to another power plant and location for which the Commission has accepted a Notice of Intention. Emissions offsets may be deposited in the bank only by the applicant to construct the power plant, and all emissions offsets contained in the bank shall be used in accordance with Section (D) (2).

j. If an applicant for a resource recovery project using municipal waste demonstrates to the satisfaction of the Air Pollution Control Officer that the most likely alternative for treating such waste would result in an increase in emissions allowed under existing district permits and regulations, those emissions increases which would not occur as a result of the resource recovery project may be used to offset any net emissions increase from the resource recovery project in accordance with the other provisions of this section.

k. Emissions reductions of one precursor may be used to offset emissions increases of another precursor of the same secondary pollutant provided the applicant demonstrates to the satisfaction of the Air Pollution Control Officer that the net emissions increase of the latter precursor will not cause a new violation, or contribute to an existing violation, of any national ambient air quality standard at the point of maximum ground level impact. The ratio of emission reductions between precursor pollutants of the same secondary pollutant shall be determined by the Air Pollution Control Officer based on existing

air quality data and subject to the approval of the Air Resources Board.

E. PERMIT APPLICATION REQUIREMENTS

Any person who desires to construct a new stationary source or modify an existing stationary source for which district regulations require a permit to construct shall file an application in writing with the Air Pollution Control Officer, except as provided in Section (H). Such application shall contain the information required pursuant to (district regulations and the list and criteria adopted pursuant to 'AB 884' regarding information requirements).

F. PERMIT CONDITION REQUIREMENTS

The Air Pollution Control Officer shall, as a condition for the issuance of a permit to construct for a new stationary source or modification and with the prior written consent of the owner or operator of any source which provides offsets:

1. Require that the new source or modification and any sources which provide offsets be operated in the manner assumed in making the analysis required to determine compliance with this rule.
2. Modify, or require modification of, the permit to operate for any source used to provide offsets to ensure that emissions reductions at that source which provide offsets will be enforceable and shall continue for the reasonably expected useful life of the proposed source. If offsets are obtained from a source for which there is no permit to operate, a written contract shall be required between the applicant and the owner or operator of such source which contract,

by its terms, shall be enforceable by the Air Pollution Control Officer to ensure that such reductions will continue for the reasonably expected useful life of the proposed source.

3. Permit any other reasonably enforceable methods, other than those described in Subsections (1) and (2) which the Air Pollution Control Officer is satisfied will assure that all required offsets are achieved.

G. ANALYSIS, NOTICE, AND REPORTING

1. The Air Pollution Control Officer shall determine whether the application is complete not later than 30 calendar days after receipt of the application, or after such longer time as both the applicant and the Air Pollution Control Officer may agree. Such determination shall be transmitted in writing immediately to the applicant at the address indicated on the application. If the application is determined to be incomplete, the determination shall specify which parts of the application are incomplete and how they can be made complete. Upon receipt by the Air Pollution Control Officer of any resubmittal of the application, a new 30-day period in which the Air Pollution Control Officer must determine completeness shall begin. Completeness of an application or re-submitted application shall be evaluated on the basis of the requirements set forth in (district regulations adopted pursuant to AB 884 regarding information requirements) as it exists on the date on which the application or resubmitted application was received. After the Air Pollution Control Officer accepts an application as complete, the Air Pollution Control Officer shall not subsequently request of an applicant any new or additional information

which was not specified in the Air Pollution Control Officer's list of items to be included within such applications. However, the Air Pollution Control Officer may, during the processing of the application, request an applicant to clarify, amplify, correct, or otherwise supplement the information required in such list in effect at the time the complete application was received. Making any such request does not waive, extend, or delay the time limits in this rule for decision on the completed application, except as the applicant and Air Pollution Control Officer may both agree.

2. Following acceptance of an application as complete, the Air Pollution Control Officer shall:

   a. Perform the evaluations required to determine compliance with this rule and make a preliminary written decision as to whether a permit to construct should be approved, conditionally approved, or disapproved. The decision shall be supported by a succinct written analysis.

   b. Within 10 calendar days following such decision, publish a notice by prominent advertisement in at least one newspaper of general circulation in the District stating the preliminary decision of the Air Pollution Control Officer and where the public may inspect the information required to be made available under Subsection (c). The notice shall provide 30 days from the date of publication for the public to submit written comments on the preliminary decision.

   c. At the time notice of the preliminary decision is published, make available for public inspection at the Air Pollution

Control District's office the information submitted by the applicant, the Air Pollution Control Officer's supporting analysis for the preliminary decision, and the preliminary decision to grant or deny the permit to construct, including any proposed permit conditions, and the reasons therefor. The confidentiality of trade secrets shall be considered in accordance with Section 6254.7 of the Government Code and relevant sections of the Administrative Code of the State of California.

d. No later than the date of publication of the notice required by Subsection (b), forward the analysis, the preliminary decision, and copies of the notice to the Air Resources Board (attn: Chief, Stationary Source Control Division) and the Regional Office of the U.S. Environmental Protection Agency.

e. Consider all written comments submitted during the 30 day public comment period.

f. Within 180 days after acceptance of the application as complete, take final action on the application after considering all written comments. The Air Pollution Control Officer shall provide written notice of the final action to the applicant, the Environmental Protection Agency, and the California Air Resources Board, shall publish such notice in a newspaper of general circulation, and shall make the notice and all supporting documents available for public inspection at the Air Pollution Control District's office.

3. The public notice and reporting requirements set forth in Subsections (2) (b) through (2) (f) shall not be required for any permit which does not include conditions requiring the control of emissions from an existing source.

H. POWER PLANTS

This section shall apply to all power plants proposed to be constructed in the District and for which a Notice of Intention (NOI) or Application for Certification (AFC) has been accepted by the California Energy Commission. The Air Pollution Control Officer, pursuant to Section 25538 of the Public Resources Code, may apply for reimbursement of all costs, including lost fees, incurred in order to comply with the provisions of this section.

1. Within fourteen days of receipt of an NOI, the Air Pollution Control Officer shall notify the ARB and the Commission of the District's intent to participate in the NOI proceeding. If the District chooses to participate in the NOI proceeding, the Air Pollution Control Officer shall prepare and submit a report to the ARB and the Commission prior to the conclusion of the nonadjudicatory hearings specified in Section 25509.5 of the Public Resources Code. That report shall include, at a minimum:

   a. a preliminary specific definition of best available control technology (BACT) for the proposed facility;

   b. a preliminary discussion of whether there is substantial likelihood that the requirements of this rule and all other District regulations can be satisfied by the proposed facility;

   c. a preliminary list of conditions which the proposed facility must meet in order to comply with this rule or any other applicable district regulation.

   The preliminary determinations contained in the report shall be as specific as possible within the constraints of the information contained in the NOI.

2. Upon receipt of an Application for Certification (AFC) for a power plant, the Air Pollution Control Officer shall conduct a Determination of Compliance review. This Determination shall consist of a review identical to that which would be performed if an application for a permit to construct had been received for the power plant. If the information contained in the AFC does not meet the requirements of Section (E) of this rule, the Air Pollution Control Officer shall, within 20 calendar days of receipt of the AFC, so inform the Commission, and the AFC shall be considered incomplete and returned to the applicant for resubmittal.
3. The Air Pollution Control Officer shall consider the AFC to be equivalent to an application for a Permit to Construct during the Determination of Compliance review, and shall apply all provisions of this rule which apply to applications for a Permit to Construct.
4. The Air Pollution Control Officer may request from the applicant any information necessary for the completion of the Determination of Compliance review. If the Air Pollution Control Officer is unable to obtain the information, the Air Pollution Control Officer may petition the presiding Commissioner for an order directing the applicant to supply such information.
5. Within 180 days of accepting an AFC as complete, the Air Pollution Control Officer shall make a preliminary decision on:
   a. whether the proposed power plant meets the requirements of this rule and all other applicable district regulations; and
   b. in the event of compliance, what permit conditions will be required including the specific BACT requirements and a description

of required mitigation measures.

6. The preliminary written decision made under Subsection (5) shall be treated as a preliminary decision under Subsection (G) (2) (a) of this rule, and shall be finalized by the Air Pollution Control Officer only after being subject to the public notice and comment requirements of Subsections (G) (2) (b) through (G) (2) (f). The Air Pollution Control Officer shall not issue a Determination of Compliance unless all requirements of this rule are met.
7. Within 240 days of the filing date, the Air Pollution Control Officer shall issue and submit to the Commission a Determination of Compliance or, if such a determination cannot be issued, shall so inform the Commission. A Determination of Compliance shall confer the same rights and privileges as a permit to construct only when and if the Commission approves the AFC, and the Commission certificate includes all conditions of the Determination of Compliance.
8. Any applicant receiving a certificate from the Commission pursuant to this section and in compliance with all conditions of the certificate shall be issued a permit to operate by the Air Pollution Control Officer.

I. DEFINITIONS

1. "Best Available Control Technology (BACT)" means for any source the more stringent of:
   a. The most effective emissions control technique which has been achieved in practice, for such category or class of source; or
   b. Any other emissions control technique found, after public hearing, by the Air Pollution Control Officer or the Air Resources Board to be technologically feasible and cost/effective for such class or category of sources or for a specific source; or

c. The most effective emission limitation which the EPA certifies is contained in the implementation plan of any State approved under the Clean Air Act for such class or category of source, unless the owner or operator of the proposed source demonstrates that such limitations are not achievable.

2. "California Coastal Waters" means that area between the California coastline and a line starting at the California-Oregon border at the Pacific Ocean,

thence to 42.0^{0}N	125.5^{0}W
thence to 41.0^{0}N	125.5^{0}W
thence to 40.0^{0}N	125.5^{0}W
thence to 39.0^{0}N	125.0^{0}W
thence to 38.0^{0}N	124.5^{0}W
thence to 37.0^{0}N	123.5^{0}W
thence to 36.0^{0}N	122.5^{0}W
thence to 35.0^{0}N	121.5^{0}W
thence to 34.0^{0}N	120.5^{0}W
thence to 33.0^{0}N	119.5^{0}W
thence to 32.5^{0}N	118.5^{0}W

and ending at the California-Mexico border at the Pacific Ocean.

3. "Modification" means any physical change in, change in method of operation of, or addition to an existing stationary source, except that routine maintenance or repair shall not be considered to be a physical change. A change in the method of operation, unless previously limited by an enforceable permit condition, shall not

include:

a. An increase in the production rate, if such increase does not exceed the operating design capacity of the source.

b. An increase in the hours of operation.

c. Change in ownership of a source.

4. "Stationary Source" includes any structure, building, facility, equipment, installation or operation (or aggregation thereof) which is located on one or more bordering properties within the District and which is owned, operated, or under shared entitlement to use by the same person.

Items of air-contaminant-emitting equipment shall be considered aggregated into the same stationary source, and items of nonair-contaminant-emitting equipment shall be considered associated with air-contaminant-emitting equipment only if:

a. The operation of each item of equipment is dependent upon, or affects the process of, the others; and

b. The operation of all such items of equipment involves a common raw material or product.

Emissions from all such aggregated items of air-contaminant-emitting equipment and all such associated items of nonair-contaminant-emitting equipment of a stationary source shall be considered emissions of the same stationary source. The emissions from all cargo carriers (excluding motor vehicles) while operating within the Air Basin, including marine cargo vessels while operating within the California Coastal Waters adjacent to the Air Basin, which load or unload at the source shall be considered as emissions from the stationary source.

5. "Precursor" means a directly emitted pollutant that, when released to the atmosphere, forms or causes to be formed or contributes to the formation of a secondary pollutant for which an ambient air quality standard has been adopted, or whose presence in the atmosphere will contribute to the violation of one or more ambient air quality standards. The following precursor-secondary pollutant relationships shall be used for purposes of this rule:

Precursors	Secondary Pollutants
Hydrocarbons and substituted hydrocarbons (reactive organic gases)	a) photochemical oxidant (ozone) b) the organic fraction of suspended particulate matter.
Nitrogen oxides (NOx)	a) Nitrogen dioxide (NO_2) b) the nitrate fraction of suspended particulate matter. c) photochemical oxidant (ozone)*
Sulfur oxides (SOx)	a) sulfur dioxide (SO_2) b) sulfates ($SO_4^=$) c) the sulfate fraction of suspended particulate matter.

*Applicable only in the following air basins;

Sacramento Valley

San Francisco Bay Area

San Joaquin Valley

South Coast

South Central Coast

6. "Seasonal source" means any source with more than 75 percent of its

annual operating hours within a consecutive 90-day period.

7. The "upwind" area shall be bounded by a line drawn perpendicular to the predominant wind flow line passing through or nearest to the site of the new source or modification and extending to the boundaries of the same or adjoining counties within the same air basin except where the APCO determines that for reasons of topography or meteorology such a definition is inappropriate. The predominant wind flow lines used in this rule shall be those contained in Figure 3.

8. "Modeling" means using an air quality simulation model, based on specified assumptions and data, which has been approved in writing by the Executive Officer of the Air Resources Board.

J. SEVERABILITY

If any portion of this rule is found to be unenforceable, such finding shall have no effect on the enforceability of the remaining portions of the rule, which shall continue to be in full force and effect.

RULE II. STANDARDS FOR PERMITS TO OPERATE

A. GENERAL

The Air Pollution Control Officer shall deny a permit to operate for any new or modified stationary source or any portion thereof to which Rule I applies unless:

1. The owner or operator of the source has obtained a permit to construct granted pursuant to Rule I; and
2. The Air Pollution Control Officer has determined that the source and any sources which provide offsets have been constructed and/or modified to operate, and emit quantities of air contaminants, consistent

with the conditions imposed on their respective permits to construct under Section (F) of Rule I; and

3. The Air Polluton Control Officer has determined that any offsets required as a condition of the permit to construct will commence at the time of or prior to initial operations of the new source or modification, and that the offsets will be maintained throughout the operation of the new or modified source. In the case of a new or modified source which will be, in whole or in part, a replacement for an existing source on the same property, the Air Pollution Control Officer may allow a maximum of ninety (90) days as a start-up period for simultaneous operation of the existing stationary source and the new stationary source or replacement; and
4. The Air Pollution Control Officer has determined that all conditions specified in the permit to construct have been or will be likely complied with by any dates specified.

B. REQUIREMENTS

The Air Pollution Control Officer shall require as a condition for the issuance of any permit to operate for a new or modified source, that the source and any offset source be operated consistent with any conditions imposed on their respective permits to construct under Section (F) of Rule I.

C. PROCEDURES

1. The Air Pollution Control Officer shall perform the evaluations required to determine compliance with this Rule and shall take final action to approve, approve with conditions or disapprove any permit to operate a new or modified stationary source or any

portion thereof to which Rule I applies within 60 days after receipt of an application for such a permit.

2. In the event that the Air Pollution Control Officer fails to take final action on such written request within such 60-day period, such failure to act shall be deemed denial of such permit to operate and may be appealed to the District Hearing Board.

D. EXEMPTIONS

The Air Pollution Control Officer shall exempt from the provisions of this Rule any stationary source which is a continuing operation, without modification or change in operating conditions, when a permit to operate is required solely because of permit renewal or change of ownership.

E. DEFINITIONS

The definitions contained in Rule I shall be applicable to this rule

F. SEVERABILITY

If any portion of this rule is found to be unenforceable, such finding shall have no effect on the enforceability of the remaining portions of the rule which shall continue to be in full force and effect.

RULE III. STATE AMBIENT AIR QUALITY STANDARDS

All references in Rules I and II to national ambient air quality standards shall be interpreted to include state ambient air quality standards.

RULE IV. IMPLEMENTATION PLANS

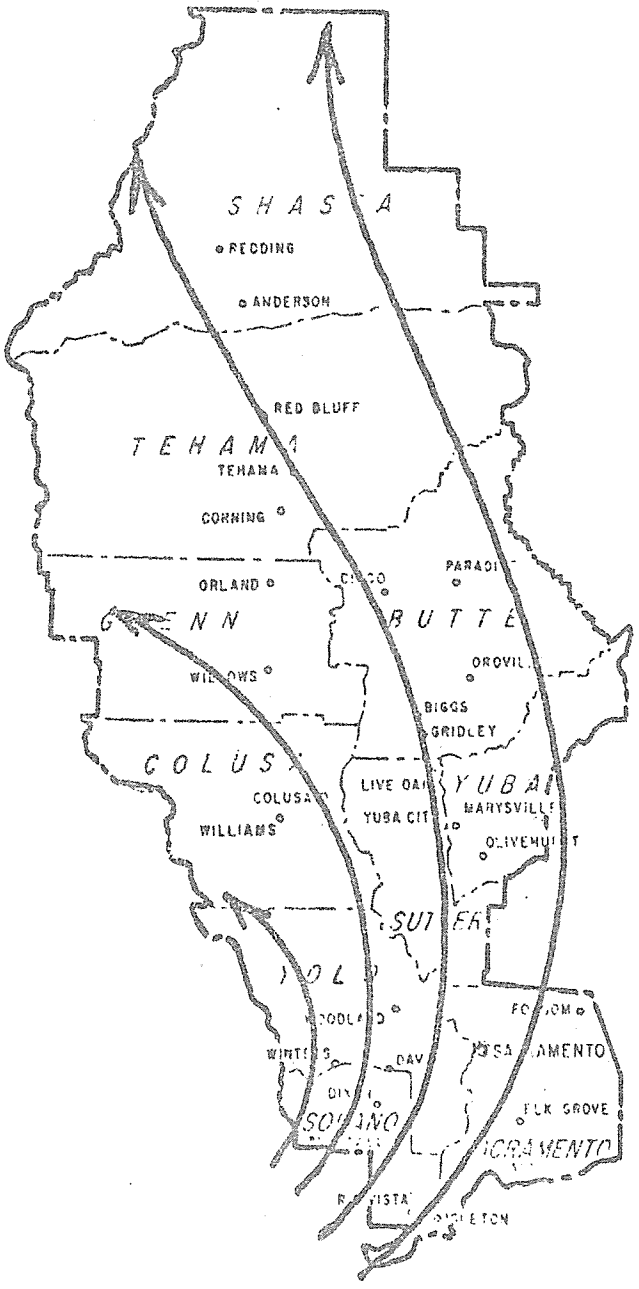
The Air Pollution Control Officer may issue a permit to construct for a new stationary source or modification which is subject to Section (D) of Rule I only if all district regulations contained in the State

Implementation Plan approved by the Environmental Protection Agency are being carried out in accordance with that plan.

SACRAMENTO VALLEY AIR BASIN

Figure 3

PREDOMINANT WIND FLOW
SUMMER (June, July, August



POPULATION SYMBOLS

- UNDER 10,000
- 10,000 TO 50,000
- 50,000 TO 100,000
- 100,000 AND OVER

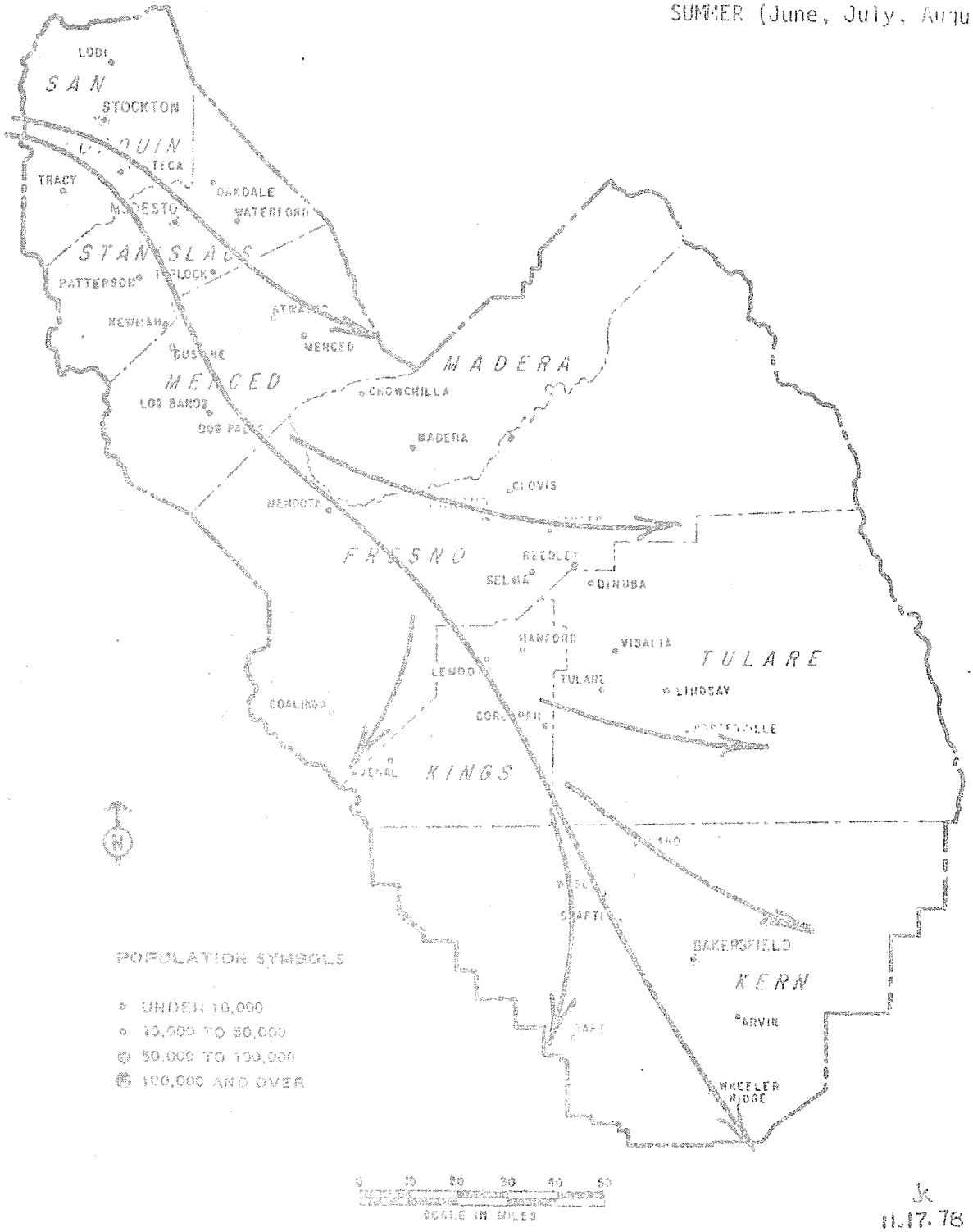
0 10 20 30 40 50
SCALE IN MILES

JK
11.17.78

SAN JOAQUIN VALLEY AIR BASIN

Figure 3

PREDOMINANT WIND FLOW
SUMMER (June, July, August)

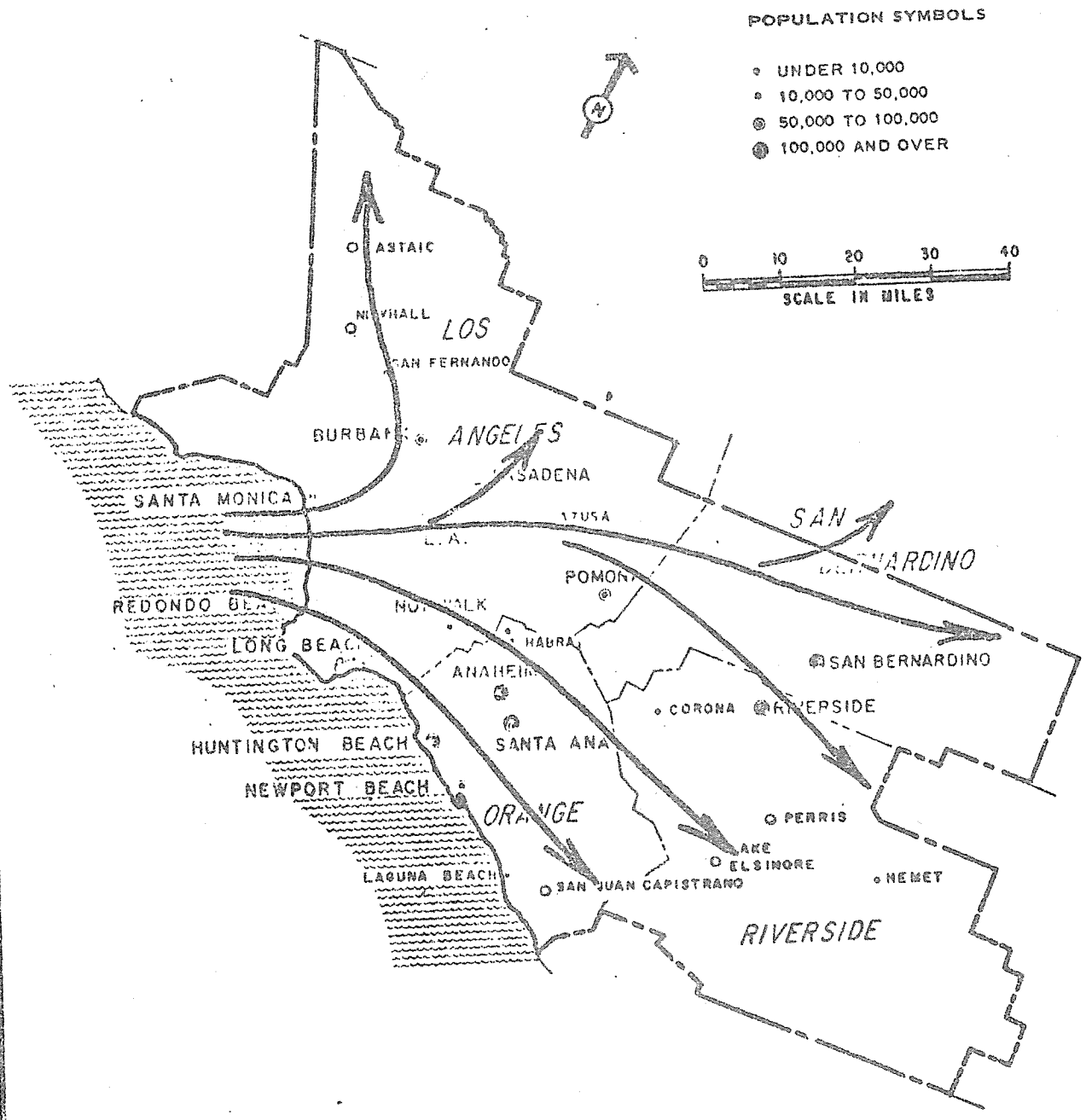


JK
11.17.78

SOUTH COAST AIR BASIN

Figure 3

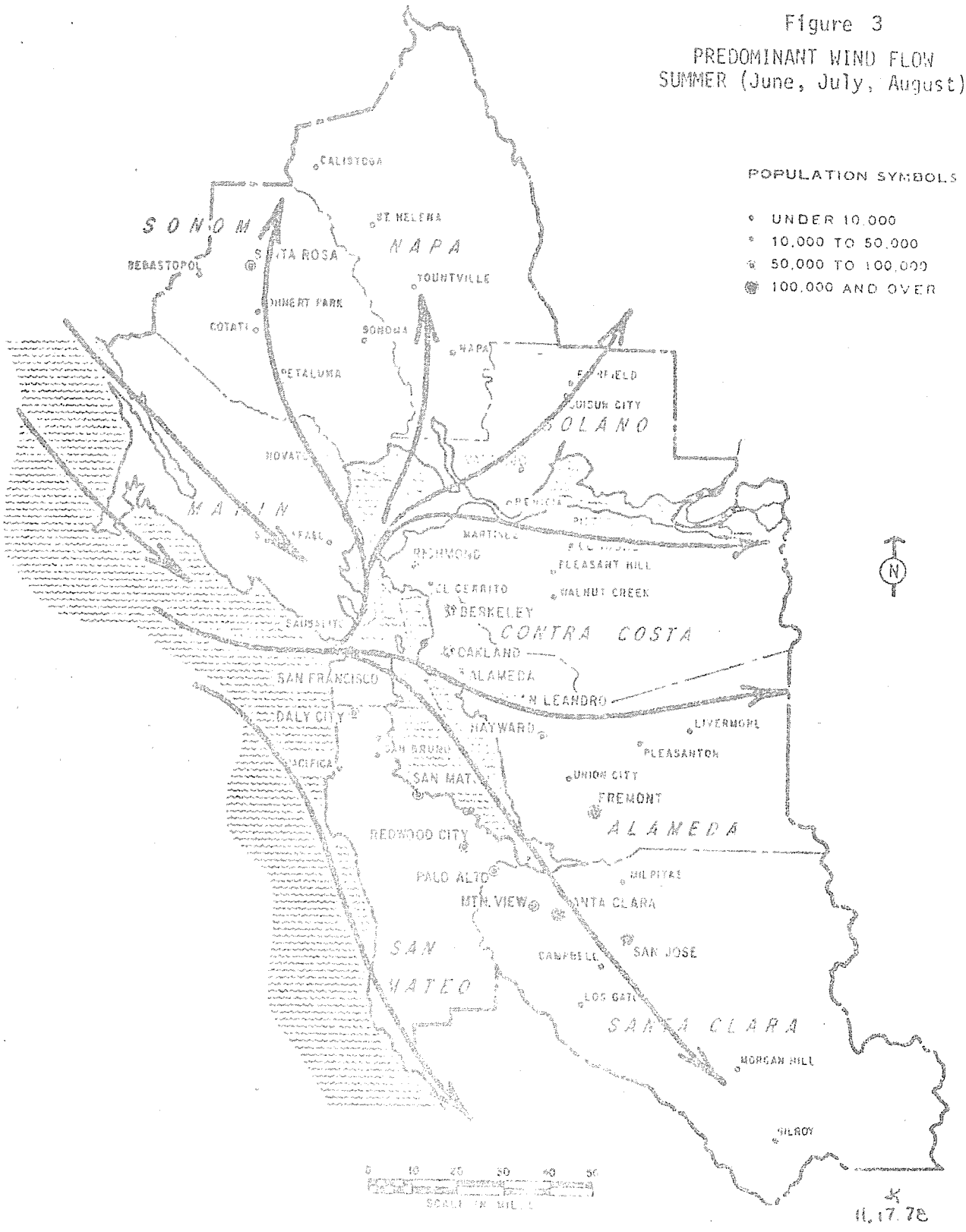
PREDOMINANT WIND FLOW
SUMMER (June, July, August)



11.17.78

SAN FRANCISCO BAY AREA AIR BASIN

Figure 3
PREDOMINANT WIND FLOW
SUMMER (June, July, August)



11.17.78

2. ARCHITECTURAL COATINGS

MODEL RULE FOR ARCHITECTURAL COATINGS (JULY 7,1977)

State of California

AIR RESOURCES BOARD

Date: July 7, 1977

Model Rule For Architectural Coatings

1. Definitions

   a. Architectural Coatings

      For the purpose of this rule, an architectural coating is defined as any coating applied to stationary structures and their appurtenances, to mobile homes, to pavements, or to curbs.

   b. Bituminous Coatings Materials

      Black or brownish materials, soluble in carbon disulfide, consisting mainly of hydrocarbons and which are obtained from natural deposits, or as residues from the distillation of crude petroleum oils, or of low grades of coal.

   c. Fire Retardant Coatings

      Architectural coatings which are designed to retard fires and which will significantly: (a) reduce the rate of flame spread on the surface of a material to which such a coating has been applied, or (b) resist ignition when exposed to high temperatures, or (c) insulate a substrate to which such a coating has been applied and prolong the time required to reach ignition temperature.

   d. Graphic Arts Coatings

      Coatings which are marketed solely for application to indoor and outdoor signs and include lettering enamels, poster colors and bulletin colors.

   e. Industrial Maintenance Finishes

      High performance coatings which are formulated for the purpose of heavy abrasion, water immersion, chemical, corrosion, temperature, electrical or solvent resistance.

   f. Metallic Pigmented Paints

      Non-bituminous coatings which are formulated with metallic pigment.

g. Opaque Stains

All stains that are not classified as semitransparent stains.

h. Primers

Coatings which are intended to be applied to a surface to provide a firm bond between the substrate and subsequent coats.

i. Sealers

Coatings which are intended for use on porous substrates to protect the substrate, to prevent subsequent coatings from being absorbed by the substrate, or to prevent harm to subsequent coatings by materials in the substrate.

j. Semitransparent Stains

Coatings which are formulated to change the color of a surface but not conceal the surface.

k. Tile-like Glaze Coatings

Coatings which are formulated to provide a tough, extra-durable coating system, which are applied as a continuous (seamless) high-build film and which cure to a hard glaze finish.

l. Undercoaters

Coatings which are designed to provide a smooth surface for subsequent coats.

m. Varnishes, Lacquers, and Shellacs

Coatings which contain resins and binders but not opaque pigments and which are specifically formulated to form a transparent or translucent solid protective film.

n. Waterproofing Coating

Coatings which are formulated for the sole purpose of preventing penetration of the substrate by water. These coatings include, but are not limited to, bituminous roof and resilient type coatings.

o. Wood Preservatives

Coatings which are formulated for the purpose of protecting exposed wood from decay and insect attack. These coatings perform their function by penetrating into the wood.

2. No person shall sell, offer for sale, or apply any architectural coating manufactured after (one year from date of adoption) which:

a. contains more than 250 grams of volatile organic material per liter of coating as applied, excluding water, except as provided in subsection b of this section.

b. contains more than 350 grams of volatile organic material per liter of coating as applied, excluding water, and is recommended solely for use on interior surfaces. Interior coatings manufactured after (three years from date of adoption) may not contain more than 250 grams of volatile organic material per liter of coating as applied, excluding water.

c. is recommended for use as a bituminous pavement sealer unless it is an emulsion type coating.

3. The provisions of Section 2 of this rule shall not apply to architectural coatings sold in this district for shipment outside of this district or for shipment to other manufacturers for repackaging.

4. The provisions of Section 2 of this rule shall not apply to coatings manufactured prior to (two years from date of adoption) by a Small Business.

a. A "Small Business" for the purposes of this rule means any business which in 1976 sold less than 200,000 gallons of paints and coatings.

(i) A business shall not qualify for this exemption if it would not be considered a Small Business, as defined in Subsection (1) of Section 1896 of Title 2 of the California Administrative Code.

(ii) A business shall not qualify for this exemption if its total annual sales volume of paints and coatings which would otherwise be subject to this rule exceeds by more than 10 percent the business's total sales volume of such coatings in calendar year 1976.

b. To qualify for a Small Business exemption, a company requesting such exemption shall file a request in writing with the Air Pollution Control Officer. The company shall provide the Air Pollution Control Officer any necessary information including, but not limited to: (i) total volume (in gallons) of paints and coatings sold in 1976; (ii) the number of persons employed by the company; (iii) the gross sales receipts (in dollars) for 1976; and (iv) total annual sales volume of paints and coatings in 1976 and any subsequent year which would otherwise be subject to this rule. Other information necessary to document that the business is not an affiliate of another business concern which would not be considered a Small Business for the purposes of this rule shall also be provided to the Air Pollution Control Officer.

The Air Pollution Control Officer after considering information submitted by the business concern shall determine whether such concern qualifies as a Small Business as defined in Subsection a. of this section and shall inform the business concern of this determination in writing.

5. The provisions of this rule shall not apply to the following coatings manufactured prior to (five years from date of adoption):

   a. architectural coatings supplied in containers having capacities of one liter or less;

   b. traffic coatings applied to public streets and highways; however, this exemption shall not extend to traffic coatings applied to other surfaces, including, but not limited to curbs, berms, driveways and parking lots.

   c. architectural coatings recommended by the manufacturer for use solely as a:

      1) varnish, lacquer, or shellac
      2) semitransparent stain
      3) opaque stain on bare redwood, cedar, mahogany, and douglas fir
      4) primer, sealer, or undercoater
      5) wood preservative
      6) fire retardant coating
      7) tile-like glaze coating
      8) waterproofing coating, except bituminous pavement sealers
      9) industrial maintenance finish
      10) metallic pigmented
      11) swimming pool coating
      12) graphic arts coatings

6. Identification of Coatings

   Containers for all coatings subject to Section 2 shall display the date of manufacture of the contents or a code indicating the dates of manufacture. The manufacturers of such coatings shall file with the Air Pollution Control Officer and the Executive Officer of the California Air Resources Board prior to (one year from date of adoption) an explanation of each code.

7. Labeling of Coatings

   a. If anywhere on the coating container, on any sticker or label affixed thereto, or in any sales or advertising literature, any indication is given that the coating may be used or is suitable for use for any purpose other than those specifically provided for in Section 5 of this rule, then the exemption provided for in said Section 5 shall not apply to that coating.

   b. In any instance where more than one of the standards set forth in Section 2 of this rule may be applicable, the most restrictive standard shall apply.

3. AUTOMOTIVE ASSEMBLYLINE COATINGS

Model rule for control of Volatile Organic Compound Emissions from light and medium - duty Motor Vehicle Assembly Plants

(June 12, 1978)

State of California

AIR RESOURCES BOARD

June 12, 1978

Model Rule for the Control of Volatile Organic Compound Emissions from Light and Medium-Duty Motor Vehicle Assembly Plants

1. Except as otherwise provided in paragraph 2 below, after December 1, 1980, a person shall not apply to any light or medium-duty vehicle on an application line any primer or topcoat which emits or may emit any volatile organic compounds in excess of the following limits:

   (a) For Primer: 350 grams per liter of coating as applied, excluding water.

   (b) For Topcoat: 590 grams per liter of coating as applied, excluding water.

2. Any person shall be exempt from paragraph 1 above if such person after December 1, 1982, does not apply to any light or medium-duty vehicle on an application line any primer or topcoat which emits or may emit any volatile organic compounds in excess of the following limits:

   (a) For Primer: 400 grams per liter of coating as applied, excluding water.

   (b) For Topcoat: 380 grams per liter of coating as applied, excluding water.

3. After December 1, 1984, a person shall not apply to any light or medium-duty vehicle on an application line any primer or topcoat which emits or may emit volatile organic compounds in excess of 275 grams per liter of coating as applied, excluding water.

4. The provisions of paragraph 1, 2, and 3 of this rule shall apply to body priming and topcoat coating operations, including application to hoods, fenders, and cargo boxes, and shall not apply to final repair or small part coating operations and the use of wheel enamels, antirust coatings, trunk coatings, interior coatings, flexible coatings, sealers, or other coating operations not associated with applying body primer and topcoat coatings.

5. After December 1, 1984, a person shall not discharge or cause the discharge into the atmosphere from any light or medium-duty motor vehicle manufacturing operations any volatile organic compounds in excess of 15.5 pounds per vehicle produced, based on a 24-hour average.

6. The emission limits prescribed above shall be achieved by:
   (a) Use of low solvent coating;
   (b) Any other emissions reduction process or equipment or combination thereof determined by the Air Pollution Control Officer to meet the applicable requirements.

7. Definitions
   a. "Application line" means that portion of a motor vehicle component production line where surface coatings are applied to such vehicle or vehicle component, including but not limited to spray booths, dip tanks, falshoff areas, ovens and any other areas where volatile organic compound emissions may occur.

b. "Light and Medium-Duty Motor Vehicles" means all passenger cars, light-duty trucks and medium-duty vehicles, as defined in Section 1900, Title 13, California Administrative Code.

c. "Primer" includes all coatings beneath the topcoat.

d. "Topcoat" means the final coating or series of coatings applied for the purpose of establishing the final color and/or protective surface.

e. "Volatile organic compound" means any compound of carbon (excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, ammonium carbonate, and methane) that has a vapor pressure greater than 0.1 mm of Hg at standard conditions.

4. CAN AND COIL COATINGS

Model Rule for the Control of Volatile Organic Compounds from Can and Coil Coatings Operations

(January 3, 1979)

State of California
AIR RESOURCES BOARD

January 3, 1979

MODEL RULE FOR THE CONTROL OF VOLATILE ORGANIC COMPOUNDS FROM CAN AND COIL COATING OPERATIONS

1. Definitions:

   a. "Can and coil coatings" mean any coating containing organic materials and applied or intended for application by spray, roller, or other means onto the inside and/or outside surfaces of formed cans or to the surface of flat metal sheets or strips that have been formed into rolls or coils for further industrial or commercial use.

   b. "Coating applicator" means an apparatus used to apply a surface coating.

   c. "Coating line" means an operation or process for applying, dry or oven baking and/or curing surface coatings, together with associated equipment including a coating applicator, flash-off area and oven.

   d. "Volatile organic compounds" (VOC) means any compound of carbon (excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, ammonium carbonate and methane) that has a vapor pressure greater than 0.1 millimeter (mm) of mercury (Hg) at standard conditions. Condensation products evolved during cure of the resin portion of the coating are likewise considered VOC.

   e. "Standard conditions" means a temperature of 20° C (68° F) and pressure of 760 mm Hg (29.92 inches of Hg).

f. "End sealing compound" means a compound which is coated onto can ends and which functions as a gasket when the end is assembled onto the can.

g. "Exterior base coating" means a coating applied to the exterior of a can to provide protection to the metal or to provide background for any lithographic or printing operation.

h. "Interior base coating" means a coating applied to the interior of a can to provide a protective lining between the product and the can.

i. "Interior body spray" means a coating sprayed on the interior of the can body to provide a protective film between the product and the can.

j. "Overvarnish" means a coating applied directly over a design coating to reduce the coefficient of friction, to provide gloss and to protect the finish against abrasion and corrosion.

k. "Three-piece can side-seam spray" means a coating sprayed on the exterior and interior of a welded, cemented or soldered seam to protect the exposed metal.

l. "Two-piece can exterior end coating" means a coating applied to the exterior end of a can to provide protection to the metal.

2. a. After (3 years from date of adoption) a person shall not use or apply any coating on any coating line of the type designated below which emits or may emit any volatile organic compound in excess of the following limits:

	Grams of VOC/liter* of coating (minus water)
(1) Can Coating Lines	
Sheet basecoat (exterior and interior) and over-varnish	180
Two-piece can exterior base coat and overvarnish	250
Two and three-piece can interior body spray, two-piece can exterior end spray or rollcoat.	510
Three-piece can side seam spray	660
End sealing compound	440
(2) Coil Coating Lines	
Prime and topcoat for single coat operation	120

*As delivered to the coating applicator, VOC = volatile organic compound.

b. The provisions of Section 2.a.(2) of this rule shall not apply to the use of coil coatings which contain less than 200 grams of volatile organic compounds per liter of coating as applied, excluding water.

c. Emissions Control

The emission limits prescribed above shall be achieved by:

(1) The use of low solvent coating; or

(2) *Any other emissions control process such as incineration, or adsorption determined by the Air Pollution Control Officer to be capable of achieving emissions reduction required by this rule.*

5. DRY CLEANING (PETROLEUM)

Petroleum Solvent Dry Cleaners
(May 8, 1978)

Petroleum Solvent Dry Cleaners

I. Effective (sixty days from date of adoption) a person shall not operate any dry cleaning equipment which uses petroleum-based solvent unless:

A. There is no liquid leaking from any portion of the equipment.

B. Solvents are stored in closed containers, which may be equipped with vents approved by the Air Pollution Control Officer.

C. All washer lint traps, button traps, access doors and other parts of the equipment, where solvent may be exposed to the atmosphere, are kept closed at all times except as required for proper operation or maintenance.

D. The still residue is stored in sealed containers or underground tanks, and is disposed of at a Class I dump or is disposed of by other procedures approved by the Air Pollution Control Officer.

E. The used filtering material is put into a sealed container immediately after removal from the filter and is disposed of at a Class I dump, unless the dry cleaning system is equipped with one of the following filtering systems:

1. Cartridge filters containing paper or carbon or a combination thereof, which are fully drained in the filter housing for at least 12 hours before removal.

2. Diatomaceous earth filtering system, connected to a centrifugal solvent extractor or other device capable of removing sufficient solvent, so that the remaining

diatomaceous earth and soil does not contain more than 0.4 kilogram of solvent per kilogram of filter powder and soil removed.

3. Any other type of filtering system or process found by the Air Pollution Control Officer to emit into the atmosphere 1 kilogram or less of solvent in the discarded soil, lint and filtering material per 100 kilograms of articles cleaned.

II. A person shall not operate any dry cleaning equipment which uses petroleum-based solvent unless all exhaust gases from drying tumblers and cabinets are vented through a carbon adsorber or other control device which reduces the total emissions of hydrocarbon vapors to the atmosphere during the entire drying cycle by at least 90 percent by weight.

A. The provisions of Section II shall become effective in accordance with the following compliance schedule. The solvent consumed by a petroleum solvent dry cleaning plant in a year means the amount of solvent purchased in that year.

1. Effective (2 years after the date of adoption) all petroleum solvent dry cleaning plants consuming more than 50,000 liters (13,209 gallons) of solvent per year shall comply with the provisions of Section II.

2. Effective (4 years after the date of adoption) all petroleum solvent dry cleaning plants consuming more than 25,000 liters (6,657 gallons) of solvent per year shall comply with the provisions of Section II.

3. Effective (6 years after the date of adoption) all petroleum solvent dry cleaning plants consuming more than 10,000 liters (2,642 gallons) of solvent per year shall comply with the provisions of Section II.

B. Increments of Progress

In order to conform with the compliance dates specified in Section II. A., an owner or operator of petroleum solvent dry cleaning equipment shall comply with the following increments of progress schedule:

1. Twelve months prior to the applicable effective date, submit to the Air Pollution Control Officer an application for Permit to Construct, describing at a minimum, the steps that will be taken to achieve compliance with the provisions of Section II of this rule.

2. Nine months prior to the applicable effective date, award the contract for the emission control system, or issue purchase orders for the component parts to accomplish emission control.

3. Five months prior to the applicable effective date, commence on-site construction or installation of equipment to reduce or control emissions.

4. One month prior to the applicable effective date, complete on-site construction or installation of equipment to reduce or control emissions.

5. On the applicable effective date, be in full compliance with the provisions of Section II of this rule.

6. SOLVENT METAL CLEANING

(DEGREASING)

State of California
AIR RESOURCES BOARD

MODEL RULE FOR THE CONTROL OF VOLATILE ORGANIC COMPOUND EMISSIONS FROM DEGREASING OPERATIONS WHICH USE ORGANIC SOLVENTS EXEMPTED FROM RULE ____[1]

April 5, 1979

A. After January 1, 1980, any person who employs solvent metal cleaning (degreasing) shall utilize a device for such cleaning, which includes the following equipment:

1. A container (degreaser) for the solvent and the articles being cleaned.
2. An apparatus or cover which prevents the solvent from evaporating when not processing work in the degreaser.

    a. For cold solvent cleaning, if the vapor pressure of the solvent is greater than 15 mm of mercury (Hg) (0.3 psi) measured at 38°C (100°F), or if the solvent is heated, or if the solvent is agitated, then the cover must be designed so that it can be opened and closed easily with one hand.

    b. For open-top vapor degreasers, the cover shall be designed such that it can be opened and closed easily without disturbing the vapor zone.

    c. For conveyorized degreasers, covers shall be provided for closing off the entrance and exit during shutdown hours.

3. A facility for draining cleaned parts such that the drained solvent is returned to the container.

---

[1] Refer to your District Rules and Regulations to determine the appropriate regulation governing degreasing operations.

4. A permanent, conspicuous lable, which lists each of the operating requirements contained in Section B.

5. For cold solvent cleaning, if the vapor pressure of the solvent is greater than 33 mm Hg or 0.6 psi at 38°C, or if the solvent is heated above 50°C, then one of the following control devices shall be used:

   a. a freeboard such that the freeboard ratio is greater than or equal to 0.75;

   b. a water cover if the solvent is insoluble in and heavier than water; or

   c. any other system demonstrated to be equivalent in emission control efficiency to the above, such as a refrigerated freeboard chiller or carbon adsorption system, and approved by the Air Pollution Control Officer.

6. If open-top vapor degreasing or conveyorized degreasing are employed, then the following equipment shall be utilized.

   a. All of the following safety devices:

      1. a device which shuts off the sump heat if either the condenser coolant stops circulating or becomes warmer than specified;

      2. for degreasers of the spray type, a device which prevents spray pump operation unless the solvent vapor level is at the designed operating level; and

3. a device (of the manual reset type) which shuts off the sump heat if the solvent vapor level rises above the designed operating level.

b. One of the following or a combination of the following major control devices:

1. a freeboard such that the freeboard ratio is greater than or equal to 0.75;

2. a refrigerated freeboard chiller which achieves a minimum of 8.8 watts cooling capacity per meter of air-vapor interface perimeter;

3. a carbon adsorption system which ventilates the air-vapor interface at a minimum rate of 15 $m^3/min/m^2$, but not greater than 20 $m^3/min/m^2$, and with a solvent vapor concentration exiting the exhaust duct of the carbon adsorber less than 25 ppm solvent averaged over one complete adsorption cycle; or

4. any other system demonstrated to be equivalent in emission control efficiency to the above and approved by the Air Pollution Control Officer.

c. For conveyorized degreasers, both of the following control devices:

1. either a drying tunnel, or another means such as a rotating basket, sufficient to prevent cleaned parts from carrying out solvent liquid or vapor, and

2. minimized opening: entrances and exits should silhouette work loads so that the average clearance between parts

and the edge of the degreaser opening is either less than 10 cm or less than 10 percent of the width of the opening.

B. After January 1, 1980, any person who employes solvent metal cleaning (degreasing) must conform to the following operating requirements:

1. Operate and maintain the degreasing equipment and emission control equipment in proper working order.

2. Do not allow any solvent to leak from any portion of the degreasing equipment.

3. Do not store or dispose of any solvent, including waste solvent, in such a manner as will cause or allow its evaporation into the atmosphere.

4. Perform distillation recovery of waste solvent, so that after distillation, solvent residues do not contain more than 10 percent solvent by volume.

5. Do not remove or open any device designed to cover the solvent unless processing work in the degreaser or performing maintenance on the degreaser.

6. Drain cleaned parts for at least 15 seconds after cleaning or until dripping ceases. (Cold solvent cleaning only.)

7. If using a solvent flow, use only a continuous, fluid stream (not a fine, atomized, or shower type spray) at a pressure which does not cause liquid solvent to splash outside of the solvent container.

8. Perform solvent agitation, where necessary, through pump recirculation or by means of a mixer. Do not use air agitation of the solvent bath.

9. For open-top vapor degreasers, a person shall minimize solvent carry-out by the following measures:

   a. rack parts to facilitate drainage,
   b. move parts in and out of the degreaser at less than 3.3 m/min.,
   c. degrease the work load in the vapor zone at least 30 seconds or until condensation ceases,
   d. allow parts to dry within the degreaser until visually dry.

10. For conveyorized degreasers, a person shall minimize solvent carry-out by the following measures:

   a. rack parts to facilitate drainage,
   b. maintain verticle conveyor speed at less than 3.3 m/min.

11. For open-top vapor degreasers:

   a. do not degrease porous or absorbent materials such as cloth, leather, wood, or rope,
   b. work loads shall not occupy more than half of the degreasers open-top area, and
   c. do not spray solvent above the vapor level.

C. Exemptions

1. The provisions of this rule do not apply to wipe cleaning.

2. The provisions of Section A(6)(b) do not apply to the following:

   a. open-top vapor degreasers which have an air-vapor interface area less than 1.0 m^2.
   b. conveyorized degreasers which have an air-vapor interface area less than 2.0 m^2.

D. Definitions

1. "Cold cleaner" means any batch loaded, non-boiling solvent degreaser.

2. "Open-top vapor degreaser" means any batch loaded, boiling solvent degreaser.

3. "Conveyorized degreaser" means any continuously loaded, conveyorized solvent degreaser, either boiling or non-boiling.

4. "Freeboard height"

   a. For cold cleaning tanks, freeboard height means the distance from the top of the solvent or solvent drain to the top of the tank.

   b. For vapor degreasing tanks, freeboard height means the distance from the solvent vapor-air interface to the top of the basic degreaser tank.

5. "Freeboard ratio" is defined as the freeboard height divided by the width of the degreaser.

6. "Wipe cleaning" is defined as that method of cleaning which utilizes a material such as a ray wetted with a solvent, coupled with a physical rubbing process to remove contaminants from metal surfaces.

7. "Volatile organic compound" means any compound of carbon (excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, ammonium carbonate, and methane) that has a vapor pressure greater than 0.1 mm of Hg at standard conditions.